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Michael G. Fletcher
Fletcher Yoder
P.O. Box 692289
Houston, TX 77269-2289

EXAMINER	
THORNEWELL, KIMBERLY A	
ART UNIT	**PAPER NUMBER**
2128	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/09/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

14

Office Action Summary	Application No.	Applicant(s)	
	10/827,488	PIRRONE, GIUSEPPE	
	Examiner	Art Unit	
	Kimberly Thornewell	2128	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 January 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-28 are currently pending in the instant application.

Response to Arguments

2. Applicant's arguments filed 1/8/2007 have been fully considered but they are not persuasive.

Claim Rejections, 35 USC 112:

3. Applicant argued that one of ordinary skill in the art would understand a "special purpose computer" as one configured to perform specific tasks, as opposed to an all-purpose or general purpose computer. Furthermore, Applicant argued that "a dedicated modeling station employing ASIC's or special purpose processors" is a specific example of a special purpose device (Remarks page 12 last paragraph). The Examiner respectfully traverses Applicant's arguments because it is still indefinite as to what specific tasks are to be performed by the special purpose computer. Moreover, as stated in the 10/6/2006 Office Action, Applicant has not set forth a clear definition of "special purpose processors." Therefore, "a dedicated modeling station employing ASIC's or special purpose processors" cannot be a specific example of a special purpose device. It is still indefinite as to what the "special purpose" is. Consequently, the rejection of claims 25 and 28 under 35 USC 112, second paragraph is maintained.

Claim Rejections, 35 USC 101:

4. Regarding claims 14-18,

Applicant argued that those skilled in the art would readily understand and know the various particular, tangible media which meet the limitations of the claim (Remarks page 15 first full paragraph). However, the Examiner notes that the tangible, machine readable media is only recited in the preamble of the claim.

MPEP 2111.02 recites, in part:

"'[A] claim preamble has the import that the claim as a whole suggests for it.' Bell Communications Research, Inc. v. Vitalink Communications Corp., 55 F.3d 615, 620, 34 USPQ2d 1816, 1820 (Fed. Cir. 1995). 'If the claim preamble, when read in the context of the entire claim, recites limitations of the claim, or, if the claim preamble is necessary to give life, meaning, and vitality' to the claim, then the claim preamble should be construed as if in the balance of the claim.' Pitney Bowes, Inc. v. Hewlett-Packard Co., 182 F.3d 1298, 1305, 51 USPQ2d 1161, 1165-66 (Fed. Cir. 1999)."

The recitation "tangible, machine readable media" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). The Examiner respectfully submits that the limitations of claim 14 do not depend on the machine readable media being tangible. Therefore, claim 14 is directed to software, per se, as the claim limitations are only directed to code and do not rely on the "tangible, computer readable media" recited in the preamble. Accordingly, the rejection of claim 14 under 35 USC 101 is maintained. Claims 15-18, which depend from claim 14, also contain

limitations only directed to code; therefore, the rejection of these claims under 35 USC 101 is maintained, as well.

5. Regarding claims 26-28,

Applicant argued that claim 26 is directed to a method for manufacturing a device for modeling a communication system, and that methods of manufacturing are clearly statutory (Remarks page 16 first full paragraph). The Examiner respectfully traverses.

MPEP 2106 recites, in part:

"The claimed invention as a whole must be useful and accomplish a practical application. That is, it must produce a 'useful, concrete and tangible result.' State Street, 149 F.3d at *>1373-74<, 47 USPQ2d at 1601-02."

"b) 'TANGIBLE RESULT'

The tangible requirement does not necessarily mean that a claim must either be tied to a particular machine or apparatus or must operate to change articles or materials to a different state or thing. However, the tangible requirement does require that the claim must recite more than a 35 U.S.C. 101 judicial exception, in that the process claim must set forth a practical application of that judicial exception to produce a real-world result."

The only step recited within the method for manufacturing of claim 26, is loading a computer program onto a device, wherein the computer program comprises only code. The claimed method does not contain a useful, concrete, and tangible result because Applicant has not set forth a practical application of the device loaded with the computer program in order to produce a real-world result. As such, the claim is directed to non-statutory subject matter and therefore the rejection of claims 26-28 is maintained.

Claim Rejections, 35 USC 102:

6. Applicant's arguments with respect to claims 1-28 have been considered but are moot in view of the new ground(s) of rejection.

However, regarding claims 1, 14, 19 and 26, Applicant argued that Earnshaw fails to disclose generating a plurality of simulated outgoing messages based upon at least the pluarality of simulated messages and the simulated call model. The Examiner respectfully traverses this argument and points to page 1370 column 1 paragraph 1 of Earnshaw. Here Earnshaw teaches the outgoing messages (to the destination) being generated and sent whenever an event is processed (events being processed based on the event manager).

Applicant also argued that Earnshaw fails to disclose a call model as recited in claims 1, 14, 19 and 26. Applicant asserted that "there is nothing in the Earnshaw reference that can reasonably be considered the equivalent of the call model as set forth in the claims and described in the specification." Applicant then cited pages 10-11 of the specification. It is noted that the features upon which applicant relies (i.e., the specific features of the call model disclosed on pages 10-11 of the specification) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 25 and 28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant

regards as the invention. Claims 25 and 28 make reference to a "special purpose computer." On page 18, lines 1-7 of the specification, a special purpose device is defined as "a dedicated modeling station employing ASIC's or special purpose processors...employed to implement the present modeling technique." However, the term is still rendered indefinite as the Applicant has not set forth a clear definition of "special purpose processors."

Claim Rejections - 35 USC § 101

9. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

10. Claims 14-18 and 26-28 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 14-18 are interpreted as being software, per se. Although the preamble of the claim is directed to a tangible, machine-readable media comprising code, the Applicant has not set forth any tangible embodiments of the media. Furthermore, because the limitations of claim 14 are directed to code that do not rely on the "tangible machine readable" media recited in the preamble of the claim, the term "tangible" has not been accorded any patentable weight.

Claim 26 is directed to a method manufacturing a device for modeling a communication system comprising the step of loading a computer program onto a device containing code. Applicant has not set forth the practical application of the claimed method in order to produce a real-world result. As such, the claim lacks a useful, concrete, and tangible result and is therefore rendered non-statutory.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12. Claims 1-8, 10, 12-23, 25-26, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Earnshaw et al., "A Parallel Simulator for Performance Modelling of Broadband Telecommunication Networks," published in Proceedings of the 1992 Winter Simulation Conference, in view of Lee et al., "Architecture and Performance Analysis of Packet-Based Mobile Switching Center-to-Base Station Traffic Communications for TDMA," Bell Labs Technical Journal Summer 1997.

As per claim 1,

Earnshaw discloses a method for modeling a communication system, comprising the steps of:

- assigning a plurality of simulated messages (**page 1366 column 2 section 3.1 lines 11-19**, "passing messages between processors") to one or more simulated external nodes (**page 1372 figure 8**, external nodes being those transputers with local exchanges) based upon at least a simulated call model (**page 1368 section 3.2.4 lines 1-5**, "event list") and a simulated network configuration (**page 1366**

column 2 section 3.1 lines 11-19, "network...configured in arbitrary topologies");

- distributing the plurality of simulated messages between a plurality of simulated active links (**page 1372 figure 8**, links between local exchanges and turnk exchanges) connecting the one or more simulated external nodes to a plurality of simulated processors of a simulated telecommunication facility based on at least the simulated network configuration (**figure 8,** facility being the group of transputers, i.e. microprocessors, with the trunk exchange);
- distributing the plurality of simulated messages between the plurality of simulated processors (**figure 8,** shown as each local exchange being dually connected to two trunk exchanges. See p. 1372 column 1 lines 1-6);
- generating a plurality of simulated outgoing messages based upon at least the plurality of simulated messages and the simulated call model (**page 1370 column 1 first paragraph**);
- and distributing the plurality of simulated outgoing messages between the plurality of simulated active links based on at least the simulated network configuration (**figure 8,** messages being sent between processors. See p. 1372 column 2 first full paragraph lines 1-9).

Earnshaw does not disclose expressly the plurality of simulated messages being distributed between the plurality of simulated processors based on a *simulated mobile switching center* architecture, or distributing the plurality of simulated outgoing messages between the plurality of simulated active links based on the *mobile switching center architecture*. Lee

discloses simulating the distribution of messages between simulated active links (**page 54 column 1**, *packet switching*) using a mobile switching center architecture (**page 51 column 1 first paragraph,** *MSC, also page 50 column 2 second full paragraph, and page 55 figure 10*).

It would have been obvious to one of ordinary skill in the art of modeling communications systems, at the time of the present invention, to modify Earnshaw's telecommunication network simulator with Lee's MSC architecture in order to achieve a method for modeling a communication system by distributing simulated messages based on a simulated mobile switching center architecture. The motivation for doing so would have been to increase capacity of simulated messages by employing a simulated MSC architecture (Lee page 47 column 1 first paragraph, also page 48 column 1 first paragraph).

As per claim 2,

Lee discloses estimating a contribution to processor occupancy for one or more processors of the plurality of simulated processors based on the simulated messages (**page 54 column 1 third paragraph**).

As per claim 3,

Earnshaw discloses deriving a processor utilization for one or more processors of the plurality of simulated processors based on the respective contributions to processor occupancy (**page 1372 column 1 first paragraph lines 13-16**).

As per claim 4,

Earnshaw discloses deriving a bandwidth utilization for one or more links of the plurality of simulated active links based on the distribution of the plurality of simulated messages between the one or more simulated active links (**page 1367 column 1 section 3.2.2 lines 1-6**).

As per claim 5,

Earnshaw discloses deriving a message load distribution based on at least the distribution of the plurality of simulated messages between the one or more respective simulated processors (**page 1368 column 1 section 3.2.5 lines 8-13**).

As per claim 6,

Earnshaw discloses the simulated telecommunication facility representing a mobile switching center (**page 1366 column 2 section 3.1 lines 11-19**, switching between processors).

As per claim 7,

Earnshaw discloses the one or more simulated external nodes representing an electronic switching system (**figure 8,** transputers having "local exchanges," i.e. switching).

As per claim 8,

Earnshaw discloses the plurality of simulated processors representing at least a direct link node (**figure 8,** direct links between the local exchange and trunk exchange).

As per claim 10,

Earnshaw discloses constructing a mobile switching center based on the simulated network configuration (**figure 8, page 1372 column 1 lines 1-6**), wherein the simulated network configuration results in a desired distribution of the plurality of simulated messages between the plurality of active links (**page 1367 column 1 section 3.2.1 lines 1-5**).

As per claim 12,

Earnshaw discloses procuring a processor-based component based on the simulated network configuration (**figure 2**, transputer T1 procuring transputer T3), wherein the simulated network configuration results in a desired distribution of the plurality of simulated messages between the plurality of simulated active links (**page 1367 column 1 section 3.2.1 lines 1-5**).

As per claim 13,

Earnshaw discloses constructing a link based on the simulated network configuration (**page 1368 column 2 second paragraph lines 1-7**), wherein the simulated network configuration results in a desired distribution of the plurality of simulated messages between the plurality of simulated active links (**page 1367 column 1 section 3.2.1 lines 1-5**).

As per claim 14,

Earnshaw discloses a tangible, machine readable media, comprising:

- code adapted to assign a plurality of simulated messages (**page 1366 column 2 section 3.1 lines 11-19**, "passing messages between processors") to one or more simulated external nodes (**page 1372 figure 8**, external nodes being those

transputers with local exchanges) based upon at least a simulated call model (**page 1368 section 3.2.4 lines 1-5**, "event list") and a simulated network configuration (**page 1366 column 2 section 3.1 lines 11-19**, "network...configured in arbitrary topologies");

- code adapted to distribute the plurality of simulated messages between a plurality of simulated active links (**page 1372 figure 8**, links between local exchanges and turnk exchanges) connecting the one or more simulated external nodes to a plurality of simulated processors of a simulated telecommunication facility based on at least the simulated network configuration (**figure 8,** facility being the group of transputers, i.e. microprocessors, with the trunk exchange);
- code adapted to distribute the plurality of simulated messages between the plurality of simulated processors (**figure 8,** shown as each local exchange being dually connected to two trunk exchanges. See p. 1372 column 1 lines 1-6);
- code adapted to generate a plurality of simulated outgoing messages based upon at least the plurality of simulated messages and the simulated call model (**page 1368 column 2 last paragraph lines 1-6**, outgoing messages being "switched" messages);
- and code adapted to distribute the plurality of simulated outgoing messages between the plurality of simulated active links based on at least the simulated network configuration (**figure 8,** messages being sent between processors. See p. 1372 column 2 first full paragraph lines 1-9).

Earnshaw does not disclose expressly the plurality of simulated messages being distributed between the plurality of simulated processors based on a *simulated mobile switching center* architecture, or distributing the plurality of simulated outgoing messages between the plurality of simulated active links based on the *mobile switching center architecture*. Lee discloses simulating the distribution of messages between simulated active links (**page 54 column 1**, *packet switching*) using a mobile switching center architecture (**page 51 column 1 first paragraph,** *MSC, also page 50 column 2 second full paragraph, and page 55 figure 10*).

It would have been obvious to one of ordinary skill in the art of modeling communications systems, at the time of the present invention, to modify Earnshaw's telecommunication network simulator with Lee's MSC architecture in order to achieve a method for modeling a communication system by distributing simulated messages based on a simulated mobile switching center architecture. The motivation for doing so would have been to increase capacity of simulated messages by employing a simulated MSC architecture (Lee page 47 column 1 first paragraph, also page 48 column 1 first paragraph).

As per claim 15,

Lee discloses code adapted to estimate a contribution to processor occupancy for one or more processors of the plurality of simulated processors based on the simulated messages (**page 54 column 1 third paragraph**).

As per claim 16,

Earnshaw discloses code adapted to derive a processor utilization for one or more processors of the plurality of simulated processors based on the respective contributions to processor occupancy (**page 1372 column 1 first paragraph lines 13-16**).

As per claim 17,

Earnshaw discloses code adapted to derive a bandwidth utilization for one or more links of the plurality of simulated active links based on the plurality of simulated outgoing messages between the one or more simulated active links (**page 1367 column 1 section 3.2.2 lines 1-6**).

As per claim 18,

Earnshaw discloses code adapted to derive a message load distribution based on at least the distribution of the plurality of simulated messages between the one or more respective simulated processors (**page 1368 column 1 section 3.2.5 lines 8-13**).

As per claim 19,

Earnshaw discloses a device for modeling a communication system, comprising:

- a processor configured to execute code adapted to:
    - assign a plurality of simulated messages (**page 1366 column 2 section 3.1 lines 11-19**, "passing messages between processors") to one or more simulated external nodes (**page 1372 figure 8**, external nodes being those transputers with local exchanges) based upon at least a simulated call model

(**page 1368 section 3.2.4 lines 1-5**, "event list") and a simulated network configuration (**page 1366 column 2 section 3.1 lines 11-19**, "network...configured in arbitrary topologies");

- distribute the plurality of simulated messages between a plurality of simulated active links (**page 1372 figure 8**, links between local exchanges and turnk exchanges) connecting the one or more simulated external nodes to a plurality of simulated processors of a simulated telecommunication facility based on at least the simulated network configuration (**figure 8,** facility being the group of transputers, i.e. microprocessors, with the trunk exchange);
- distribute the plurality of simulated messages between the plurality of simulated processors (**figure 8,** shown as each local exchange being dually connected to two trunk exchanges. See p. 1372 column 1 lines 1-6);
- generate a plurality of simulated outgoing messages based upon at least the plurality of simulated messages and the simulated call model (**page 1368 column 2 last paragraph lines 1-6**, outgoing messages being "switched" messages);
- and distribute the plurality of simulated outgoing messages between the plurality of simulated active links based on at least

the simulated network configuration (**figure 8,** messages being sent between processors. See p. 1372 column 2 first full paragraph lines 1-9).

Earnshaw does not disclose expressly the plurality of simulated messages being distributed between the plurality of simulated processors based on a *simulated mobile switching center* architecture, or distributing the plurality of simulated outgoing messages between the plurality of simulated active links based on the *mobile switching center architecture*. Lee discloses simulating the distribution of messages between simulated active links (**page 54 column 1**, *packet switching*) using a mobile switching center architecture (**page 51 column 1 first paragraph,** *MSC, also page 50 column 2 second full paragraph, and page 55 figure 10*).

It would have been obvious to one of ordinary skill in the art of modeling communications systems, at the time of the present invention, to modify Earnshaw's telecommunication network simulator with Lee's MSC architecture in order to achieve a method for modeling a communication system by distributing simulated messages based on a simulated mobile switching center architecture. The motivation for doing so would have been to increase capacity of simulated messages by employing a simulated MSC architecture (Lee page 47 column 1 first paragraph, also page 48 column 1 first paragraph).

As per claim 20,

Lee discloses code adapted to estimate a contribution to processor occupancy for one or more processors of the plurality of simulated processors based on the simulated messages (**page 54 column 1 third paragraph**).

As per claim 21,

Earnshaw discloses code adapted to derive a processor utilization for one or more processors of the plurality of simulated processors based on the respective contributions to processor occupancy (**page 1372 column 1 first paragraph lines 13-16**).

As per claim 22,

Earnshaw discloses code adapted to derive a bandwidth utilization for one or more links of the plurality of simulated active links based on the plurality of simulated outgoing messages between the one or more simulated active links (**page 1367 column 1 section 3.2.2 lines 1-6**).

As per claim 23,

Earnshaw discloses code adapted to derive a message load distribution based on at least the distribution of the plurality of simulated messages between the one or more respective simulated processors (**page 1368 column 1 section 3.2.5 lines 8-13**).

As per claim 25,

Earnshaw discloses the device comprising a special purpose computer (**page 1366 column 2 section 3.1 lines 7-11,** transputer network).

As per claim 26,

Earnshaw discloses a method for manufacturing a device for modeling a communication system, comprising the step of:

- loading a computer program onto a device (**Column 8 lines 35-47**), wherein the computer program comprises:
    - code adapted to a plurality of simulated messages (**page 1366 column 2 section 3.1 lines 11-19**, "passing messages between processors") to one or more simulated external nodes (**page 1372 figure 8**, external nodes being those transputers with local exchanges) based upon at least a simulated call model (**page 1368 section 3.2.4 lines 1-5**, "event list") and a simulated network configuration (**page 1366 column 2 section 3.1 lines 11-19**, "network...configured in arbitrary topologies");
    - code adapted to distribute the plurality of simulated messages between a plurality of simulated active links (**page 1372 figure 8**, links between local exchanges and turnk exchanges) connecting the one or more simulated external nodes to a plurality of simulated processors of a simulated telecommunication facility based on at least the simulated network configuration (**figure 8,** facility being the group of transputers, i.e. microprocessors, with the trunk exchange);

- code adapted to distribute the plurality of simulated messages between the plurality of simulated processors (**figure 8,** shown as each local exchange being dually connected to two trunk exchanges. See p. 1372 column 1 lines 1-6);
- code adapted to generate a plurality of simulated outgoing messages based upon at least the plurality of simulated messages and the simulated call model (**page 1368 column 2 last paragraph lines 1-6**, outgoing messages being "switched" messages); and
- code adapted to distribute the plurality of simulated outgoing messages between the plurality of simulated active links based on at least the simulated network configuration (**figure 8,** messages being sent between processors. See p. 1372 column 2 first full paragraph lines 1-9).

Earnshaw does not disclose expressly the plurality of simulated messages being distributed between the plurality of simulated processors based on a *simulated mobile switching center* architecture, or distributing the plurality of simulated outgoing messages between the plurality of simulated active links based on the *mobile switching center architecture*. Lee discloses simulating the distribution of messages between simulated active links (**page 54 column 1**, *packet switching*) using a mobile switching center architecture (**page 51 column 1 first paragraph,** *MSC, also page 50 column 2 second full paragraph, and page 55 figure 10*).

It would have been obvious to one of ordinary skill in the art of modeling communications systems, at the time of the present invention, to modify Earnshaw's

telecommunication network simulator with Lee's MSC architecture in order to achieve a method for modeling a communication system by distributing simulated messages based on a simulated mobile switching center architecture. The motivation for doing so would have been to increase capacity of simulated messages by employing a simulated MSC architecture (Lee page 47 column 1 first paragraph, also page 48 column 1 first paragraph).

As per claim 28,

Earnshaw discloses the device comprising a special purpose computer (**page 1366 column 2 section 3.1 lines 7-11,** transputer network).

11. Claims 9, 11, 24, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Earnshaw in view of Lee as applied to claims 1-8, 10, 12-23, 25-26, and 28 above, in view of Scoggins et al., "*A Teletraffic Simulator for Circuit Switched and Signaling Intelligent Network with SS7*," published in the Proceedings of the 1991 Winter Simulation Conference.

As per claim 9,

Neither Earnshaw nor Lee disclose expressly the plurality of simulated processors representing components of a legacy network. Scoggins discloses a simulation of telecommunications networks (**page 688 column 2 second full paragraph lines 1-7**), where simulated some of the processors represent components of a legacy network (**page 692 column 1 first full paragraph lines 1-4**, components from circuit-switched network).

It would have been obvious to one of ordinary skill in the art of telecommunications simulation, at the time of the present invention, to modify Earnshaw/Lee's broadband telecommunication simulator with Scoggins' hybrid simulator in order to achieve a simulator that works with both legacy networks and more recent networks. The motivation for doing so would have been to increase flexibility by adding new network features onto a simulator without affecting already existing functions (Scoggins page 689 column 1 lines 1-11).

As per claim 11,

Neither Earnshaw nor Lee disclose expressly upgrading a mobile switching center based on the simulated network configuration. Scoggins discloses a simulation of telecommunications networks (**page 688 column 2 second full paragraph lines 1-7**), where switching locations are upgraded based on the network configuration (**page 692 column 2 second full paragraph lines 9-15**), and wherein the simulated network configuration results in a desired distribution of the plurality of simulated messages between the plurality of simulated processors (**page 689 column 2 first full paragraph lines 1-5**).

It would have been obvious to one of ordinary skill in the art of telecommunications simulation, at the time of the present invention, to modify Earnshaw/Lee's broadband telecommunication simulator with Scoggins' upgraded switching locations in order to achieve a simulator that upgrades a simulated mobile switching center based on a simulated network configuration. The motivation for doing so would have been make message transfer more reliable by managing the message route and updating the routing table to control message transfer (Scoggins page 689 column 2 lines 4-12).

As per claims 24 and 27,

Neither Earnshaw nor Lee not disclose expressly the device comprising a general purpose computer. Scoggins discloses a simulation of telecommunications networks (**page 688 column 2 second full paragraph lines 1-7**), implemented on a general purpose computer (**page 688 column 2 last paragraph lines 1-4**, implemented in CSIM).

It would have been obvious to one of ordinary skill in the art of telecommunication simulation, at the time of the present invention, to modify Earnshaw/Lee's broadband telecommunication simulator to be able to be run on a general purpose computer, like that of Scoggins'. The motivation for doing so would have been to increase user interaction by including interfaces to display inputs, statistics, and simulation status to the user (Scoggins page 691 column 1 last paragraph lines 1-8).

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly Thornewell whose telephone number is (571)272-6543. The examiner can normally be reached on 9am-5:30pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamini Shah can be reached on (571)272-2279. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kimberly A. Thornewell
Patent Examiner
Art Unit 2128

KAT

HUGH JONES Ph.D.
PRIMARY PATENT EXAMINER
TECHNOLOGY CENTER 2100